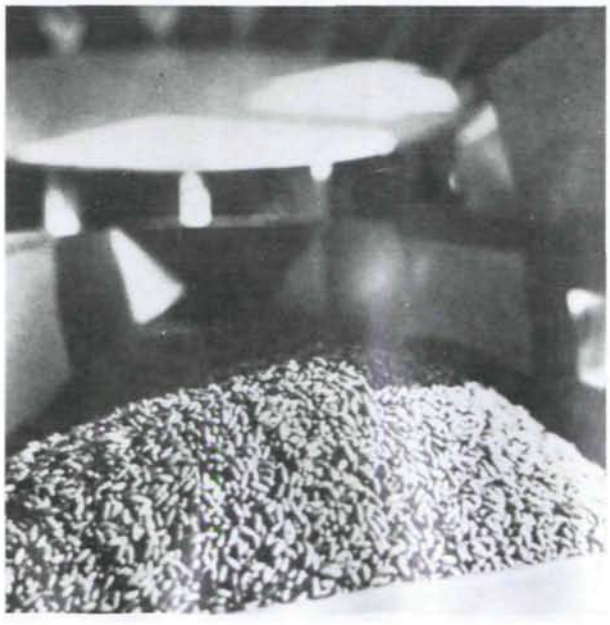
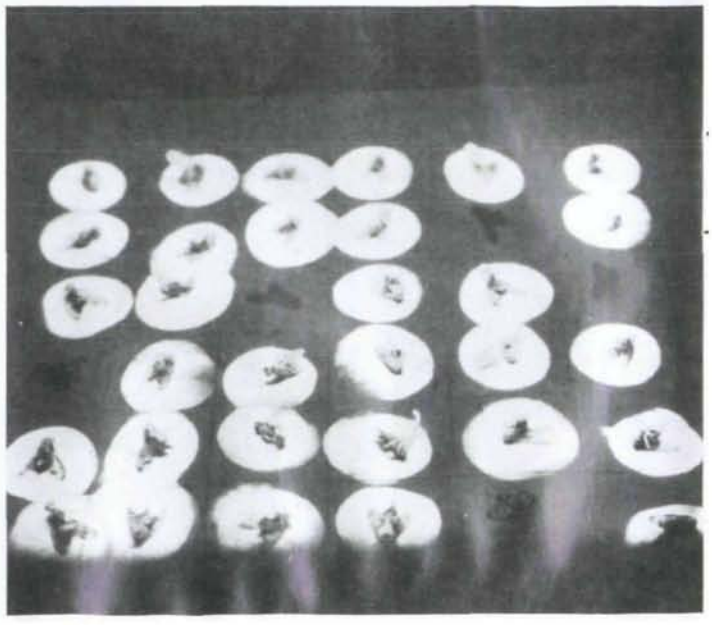
Some of the medflies targeted for eradication in Japan.

Part of the melon crop being protected.

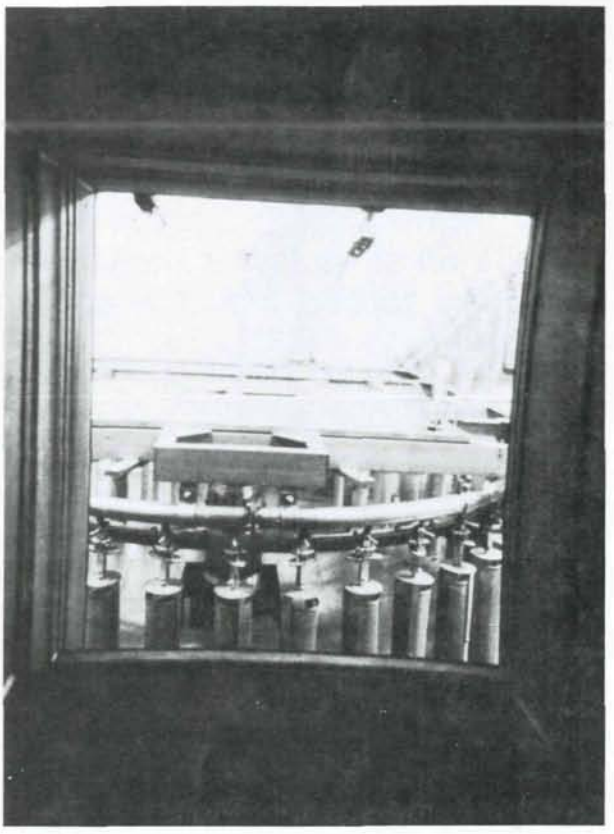
Breeding for eradication

Japan is using radiation and the sterile insect technique against the medfly





The mass-breeding facility in Naha City, Okinawa, has the capacity to breed 150 million medflies per week. Eggs are collected in cylinders, while adult flies are kept in wooden boxes.



Inside the irradiation chamber, pupae are exposed to gamma radiation from cobalt-60 for about 10 minutes for sterilization.

A long-term campaign to eradicate the medfly is being carried out in southern Japanese islands with the financial aid of the Ministry of Agriculture, Forestry, and Fisheries. In 1984, a mass-breeding facility was built for applying the sterile insect technique, in which controlled doses of radiation are used to sterilize flies to prevent reproduction. The campaign itself started in the Miyako islands in September 1984 to protect melon crops from the pest. After 2 years of extensive efforts, medflies there have almost been eliminated. It is expected that by 1992 the melon medfly will be eradicated from Japan. The accompanying photos illustrate some of the work involved in this extensive and promising campaign.

(Source: Photo *magazine, published by Gigi Gaho-Shya, Japan.)*

◀◀ Pupae are sent to the irradiation chamber.

◀ Sterilized flies are painted with fluorescent material to distinguish them from wild medflies that are trapped in the field.

In the Miyako Islands alone, a helicopter delivers loads of 2 million medflies per flight. An average of 48 million sterilized flies are released every week.